

**REMARKS**

The Office Action mailed on May 05, 2006, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 20-24 and 31-38 were pending. By this paper, Applicant amends a majority of the independent claims as seen above, and adds claims 41-45. Therefore, claims 20-24, 31-38 and 41-45 are now pending.

Support for the amendments to the claims and the new claims may be found, among other places, in the claims as originally filed.

Applicants respectfully submit that the present application is in condition for allowance for at least the reasons that follow.

**Initial Matter**

Applicants respectfully note that the May 05, 2006, Office Action is the **ninth (9<sup>th</sup>) straight non-final** Office Action in this case.<sup>1</sup> Applicants request relief from the protracted examination of this application, and submit that Applicants have long ago demonstrated the patentability of the inventions as claimed. Moreover, the teachings of the primary reference of one of those two combinations has long ago been demonstrated as failing to teach a surface as claimed, as evinced by the fact that Applicants previously successfully traversed the rejections in view of this reference (see Response to Office Action of May 20, 2004), and the secondary references, while newly applied, teach nothing more than what other previously cited references teach.

However, in the intervening five years since this case entered the national stage, Applicants have had time to identify commercial embodiments of their invention, and thus no longer need the breadth of protection afforded by the claims as previously pending, and

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<sup>1</sup> There was one Office Action that was erroneously made final, but the finality of that Office Action was withdrawn upon interviewing the examiner about the propriety of the finality of the Office Action.

therefore amend the claims as seen above, but only to advance (and end) examination. Relief is respectfully requested in the form of an expedited Notice of Allowance.

**Claim Rejections Under 35 U.S.C. §103(a)**

In the Office Action, Claims 20, 23-24, 32 and 35-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over the “Hosemann Combination,” which consists of the combination of Hosemann (U.S. Patent No. 4,944,813) with Van Vlaenderen (U.S. Patent No. 3,829,545) and Takazawa (U.S. Patent No. 4,774,105), and claims 20-21, 23, 31-33, 35 and 37-38 are rejected under the same statute in view of the “Strohmeier Combination,” which consists of Strohmeier (U.S. Patent No. 3,630,057) in combination with Wiener (U.S. Patent No. 3,446,758) and Findlay (U.S. Patent No. 5,892,176). Claims 22 and 34 are rejected in view either of the Hosemann Combination and the Strohmeier Combination when further combined with Kotera (U.S. Patent No. 4,340,519).

In response, only in order to advance examination, and without prejudice or disclaimer, Applicants amend the independent claims as seen above in a good faith attempt on their part to bring to a close the examination, and submit that these claims are allowable for at least the following reasons.

Applicants rely on MPEP § 2143, which states that:

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that no proffered combination in the Office Action meets each of the three criteria of MPEP § 2143, even before the above amendments, as will now be detailed.

The Cited References Do Not Suggest All Claim Recitations

Even if the first requirement of MPEP § 2143 was satisfied in the Office Action (which it is not, as explained below), the cited references still do not meet the third requirement, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Each independent method claim (but not the apparatus claim, which was not rejected in view of the Hosemann Combination) has been amended to recite that the intermediate coating is a metallic coating comprising at least one of a copper coating, a copper alloy coating, a zinc coating, a zinc alloy coating, a nickel coating, a nickel alloy coating, a tin coating and a tin alloy coating. The method claims would not have been obvious in view of any cited combination (assumed *arguendo* for the moment to be valid) due at least to these amendments, as will now be explained, as well as the apparatus claim.

**Hosemann Combination:** Hosemann teaches a method of coating a steel wire, and teaches that the “wire surfaces show a substantially brighter . . . optical appearance.”<sup>2</sup> However, Hosemann obtains his alleged surface having a brighter optical appearance by applying a phosphate coating to the steel wire. The entirety of Hosemann is directed towards phosphate coatings. Indeed, the title of Hosemann is “Process for **Phosphating** Metal Surfaces.” (Emphasis added.) Hosemann thus does not disclose, or even suggest (as, for example, phosphorous is a nonmetal), an intermediate coating as claimed (*i.e.*, “a metallic coating comprising at least one of a copper coating, a copper alloy coating, a zinc coating, a zinc alloy coating, a nickel coating, a nickel alloy coating, a tin coating and a tin alloy coating”). The Hosemann combination thus does not render obvious any pending claim.

**Strohmeier Combination:** The Office Action asserts that, in regards to Strohmeier, “immersion drawing plated steel wires using grease or lubricant is a known process that **commonly results** in a bright or shiny surface of the resultant wire.” (Emphasis added.)

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<sup>2</sup> Applicants do not concede that Hosemann enables one of ordinary skill in the art to obtain a bright looking surface, despite the explicit teachings of Hosemann. That is, Applicants believe that the teachings of Hosemann in this regard might be in error, and may, at a later date, submit evidence showing that this is the case.

Immediately thereafter, in a conflation of the MPEP (as discussed below), the Office Action then states that “[a]ccordingly, *the examiner has reason to believe* that the copper-plated steel wire of Strohmeier has a bright looking surface *in the absence of factual evidence to the contrary.*” Applicants initially note that they have previously dealt with the Strohmeier reference a long time ago, successfully traversing the rejections in view of a combination based on this reference (see Response to Office Action of May 20, 2004).

The grounds for rejecting the claims in view of Strohmeier are insufficient to establish a *prima facie* case of obviousness for at least two reasons, even prior to the above amendments to the claims. First, it appears that if the statements in the Office Action regarding the “examiner’s reason to believe” are extrapolated to the closest mechanism available to the PTO to reject claims in view of art that is silent with respect to specific elements of the claims, the Office Action is attempting to rely on common knowledge in the art, as is discussed and permitted in MPEP § 2144.03, to satisfy the first requirement of MPEP § 2143. However, Applicants note that § 2144.03 allows an applicant “to traverse such an assertion,” and that when an applicant does so, “*the examiner should cite a reference in support of his or her position.*” (MPEP § 2144.03, second paragraph.) That is, the MPEP states that contrary to the analysis in the Office Action, it is not Applicants’ burden to submit evidence to refute an unsupported assertion by the PTO. Instead, upon traversal of such an assertion, *it is the PTO’s responsibility to submit evidence to support their position.*

In view of the above, absent a citation by the PTO of a reference that can be evaluated for all its teachings, Applicants hereby traverse the assertion that it would have been common knowledge in the art that immersion drawing plated steel wires using grease or lubricant is a known process that results in a bright or shiny surface of the resultant wire. *Applicants thus request, relying on § 2144.03 that the PTO cite a reference and exactly identify where such a reference teaches the alleged bright surface from immersion drawing as taught by Strohmeier, else allow the claims.*

Second, the mere fact that, assuming *arguendo*, immersion drawing wires using grease or lubricant may result, under certain circumstances, in a bright looking surface (*i.e.*, “*commonly results* in a bright surface” – which means that it *may or may not* result) is

insufficient to satisfy the third requirement of MPEP § 2143. In this regard, Applicants respectfully rely on MPEP § 2112, which states that while “a rejection under 35 U.S.C. §102/103 can be made when the prior art product seems to be identical except that the prior art is silent to an inherent characteristic,” the “[E]xaminer *must* provide rationale or evidence tending to show inherency.” (MPEP § 2112, subsections 3 and 4, emphasis added.)

Applicants further provide the following excerpt from MPEP § 2112:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijkaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.).

(Emphasis added.) Inherency means that *the missing descriptive matter is necessarily present* in the reference. The courts have allowed the PTO to rely on inherency arguments to free the PTO from the necessity of finding references which explicitly state that inherent elements are present. This is because certain characteristics are inherent, the references will most probably not mention these elements, and, as such, will be difficult to find. For example, it is not necessary to find a reference that explicitly states that plutonium 239 is radioactive, as plutonium 239 is always radioactive. That is, radioactivity is an inherent feature of plutonium 239. However, inherency is not a panacea that enables the PTO to use references which are *deficient* in teaching certain elements of a claim. Recognizing the power

of the inherency argument, the courts have tempered its use, as is seen in § 2112, where the PTO has stipulated that the examiner must follow certain procedures before invoking inherency: the “examiner must provide rationale or evidence tending to show inherency.” In the present case, no such rationale or evidence has been provided in the Office Action. The PTO has not satisfied its burden to provide rationale or evidence showing that “the missing descriptive matter is necessarily present.” The subject matter of the independent claims is not necessarily present in any of the cited references. It is entirely probable that Strohmeier will be practiced in a manner where a bright looking surface does not result. Just as was the case of the third fastener in the example provided in the MPEP quoted above, the subject matter of Applicants’ claims is not expressly or inherently disclosed in Strohmeier.

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In sum, even if the other requirements of MPEP § 2143 could be satisfied, the third requirement of MPEP § 2143 cannot be satisfied in the Office Action (and that requirement was not satisfied with respect to at least the Strohmeier reference even before the above amendments to the claims<sup>3</sup>), because the cited combinations do not teach each and every element of the present invention as claimed, and the deficiencies of these references have not been remediated. The present claims are thus allowable.

#### Lack of a Reasonable Expectation of Success

MPEP § 2143.02 permits references to be modified or combined to reject a claim as obvious only if there is a reasonable expectation of success. There is no evidence in the references, and certainly none identified in the Office Action, that one of ordinary skill in the art would have had a reasonable expectation of success in achieving Applicants’ invention by combining Hosemann with Van Vlaenderen. As detailed above, Hosemann is entirely directed towards a *phosphate coating*. Applicants submit that the ordinary artisan would not have reasonably expected a polyethylene terephthalate coating according to Van Vlaenderen

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<sup>3</sup> Claim 31, which is not hereby amended, was only rejected in view of the Strohmeier Combination.

to adhere in a satisfactory manner to a phosphate coating. (Applicants note that the ordinary artisan would have recognized that polyethylene terephthalate is not the same as paint or the like, and thus would not view adherence qualities of paint as analogous to the adherence qualities of polyethylene terephthalate.) Thus, one of ordinary skill in the art would not have seen the combination of the references as producing a successful coated steel wire as claimed. Because of this, the second criteria of MPEP § 2143 has not been met in the Office Action with respect to at least the Hosemann Combination, even before the above amendments to the claims, and a *prima facie* case of obviousness has therefore not been established and cannot be established.

Lack of Suggestion or Motivation to Modify or Combine the References

MPEP § 2144.05(III), entitled Rebuttal Of *Prima Facie* Case Of Obviousness, states that a “*prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention.” (MPEP § 2144.05(III), second paragraph, emphasis added, citations omitted.) With respect to the Hosemann Combination, as seen above, Applicants have amended the claims to recite that the intermediate coating is a metallic coating comprising at least one of various recited metals and their alloys. Hosemann teaches phosphorous coating; *phosphorous being a notable nonmetal*. All his teachings are singularly directed to the use of phosphorous as a coating. Thus, Hosemann teaches away from the invention of the claims as amended, as Hosemann teaches to use nonmetals, as opposed to metals, in his coatings. It therefore would decidedly not have been obvious to modify Hosemann to utilize a metallic coating as claimed. *Indeed, Applicants submit that the PTO has already recognized the non-obviousness of modifying Hosemann to utilize a metallic coating, as the Office Action specifically did not reject claim 31, which recites specific metallic coatings, in view of the Hosemann Combination.* Applicants appreciate the PTO’s recognition of this fact.

Moreover, as detailed above, the ordinary artisan would not have expected the polyethylene terephthalate of Van Vlaenderen to adhere to the phosphorous coating of

Hosemann. Thus, the ordinary artisan would have been discouraged from looking to Van Vlaenderen to combine with Hosemann.

Therefore, to the extent that a *prima facie* case of obviousness has been established in the Office Action with respect to the Hosemann Combination, that case is hereby rebutted in view of the fact that Hosemann teaches away from the present invention.

### Claims 37 and 38

The Office Action provides as rationale for rejecting claims 37 and 38 that “this process limitation is not construed to be a matter of invention because processing of coated steel wires to result in a bright surface is known in the art.” Even assuming *arguendo* that this is correct, and assuming *arguendo* that determining the amount of brightness is design choice (which it is not, as will be detailed next), Applicants submit that claims 37 and 38 have not been properly examined.

To practice each element of claims 37 and 38, the wire must maintain its bright surface after polyester is disposed upon the bright surface, else the degree of brightness could not be obtained (a degree of brightness cannot be quantified if the material does not have a bright looking surface). That is, the coated steel wire core **with the polyester** has brightness. Thus, it is not enough that polyester merely be deposited on a bright surface (assuming *arguendo* that Hosemann or Strohmeier have such a surface), as the degree of brightness might no longer be quantified as claimed after polyester deposition. By way of example, Applicants submit that after polyethylene terephthalate deposition on the Hosemann wire, the phosphate coating may in fact absorb moisture and any bright surface that may be present with regard to the Hosemann wire may in fact no longer be present. In any event, claims 37 and 38 require that the bright surface be ascertainable (in order to accomplish the action of quantifying the degree of brightness) after polyester deposition thereon. As the Office Action has not even suggested that this would be the case, a *prima facie* case of obviousness has not been established with respect to claims 37 and 38 for yet another reason.

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Applicants respectfully submit that reliance on “design choice” is only appropriate (if at all) when the difference between the prior art and the claims of the present invention amounts only to “Reversal, Duplication, or Rearrangement of Parts.” (See MPEP § 2144.04(VI), the only portion of MPEP § 2100 that mentions “design choice.”) The difference between the cited references and the present invention is more than just the reversal, duplication, or rearrangement of parts, if only because none of the cited references teach the elements of claims 37 and 38 so that they may be reversed, duplicated, or rearranged. Instead, modifying either of the Combinations as proffered in the Office Action amounts to *physically altering* the parts of the Combinations (assuming *arguendo* that nothing more is involved). Physically alternating parts is not the same as any of “reversal,” “duplication,” or “rearrangement.” Thus, the rejection of claims 37 and 38 should be withdrawn for yet another reasons.

### New Claims

As seen above, Applicants have added new claims 41-45. These claims utilize the partially closed transitional phrase “consisting essentially of,” and thus these claims further differentiate from the proffered Combinations. Allowance of these claims is also requested.

As seen above, Applicants have also added new claims 46-48. These claims recite that the intermediate coating layer is identifiably bright after coating said steel core with said polyester. Applicants submit that these claims are allowable for the additional reasons that have been specified with respect to claim 37 and 38, under the heading “Claims 37 and 38,” above.

**Conclusion**

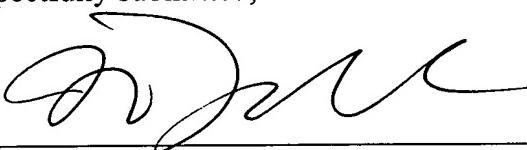
Applicants believe that the present application is now in condition for allowance.  
Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner Gray is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

By



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